

OK to Enter

[Signature]

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for masking noise in a motor vehicle having a first automobile component having a moveable part that produces noise and an engine, the method comprising:

measuring the speed of the engine speed and the engine status as being turned on;

if the speed of the engine is greater than a predetermined engine speed or if the engine is turned on measuring the speed of the vehicle; and

increasing the movement of the moveable part when the vehicle is at a predetermined speed, wherein the step of increasing the movement of the moveable part when the vehicle is at a predetermined speed comprises:

setting the amount of movement of the moveable part to a first value when the speed of the vehicle is zero; and

increasing the amount of movement as the vehicle speed increases.

2. (Cancelled)

3. (Previously Presented) The method of claim 1 wherein the step of increasing the movement of the moveable part when the vehicle is at a predetermine speed comprises:

setting the amount of movement of the moveable part to a first value when the speed of the vehicle is zero; and

linearly increasing the amount of movement of the moveable part as the speed of the vehicle increases.

4. (Original) The method of claim 1 wherein the first automobile component is a fan.

5. (Original) The method of claim 4 wherein the fan cools a second automobile component.

6. (Original) The method of claim 5 wherein the second automobile component is a battery or a radiator.

7. (Original) The method of claim 6 further comprising:
monitoring the temperature of the second automobile component; and
increasing the movement of the fan when the temperature reaches a predefined value irrespective of the vehicle speed.

8. (Original) The method of claim 7 wherein the step of increasing the movement of the moveable part when the temperature reaches a predefined value comprises:
setting the duty cycle of the fan to a first duty cycle value when the temperature of the second automobile component is equal to or below a first temperature value; and
monotonically increasing the duty cycle as the temperature of the second component increases until the duty cycle reaches a second duty cycle value.

9. (Original) The method of claim 7 wherein the step of increasing the movement of the moveable part when the vehicle is at a predetermine speed comprises:
setting the duty cycle of the fan to a first duty cycle value when the temperature of the second automobile component is equal to or below a first temperature value; and
linearly increasing the duty cycle as the temperature of the second component increases until the duty cycle reaches a second duty cycle value.

10. (Original) The method of claim 1 wherein the motor vehicle is a hybrid electric vehicle, a fuel cell vehicle, or a vehicle with an internal combustion engine.

11. (Original) The method of claim 1 wherein the motor vehicle is a hybrid electric vehicle.

12. (Previously Presented) A method for masking noise in a hybrid electric vehicle having a fan to cool a battery, the method comprising:

measuring the speed of the engine speed and the engine status as being turned on;

if the speed of the engine is greater than 600 rpm or if the engine is turned on measuring the speed of the vehicle; and

increasing the movement of the fan when the vehicle is greater than or equal to a predetermined speed.

13. (Original) The method of claim 12 wherein the step of increasing the movement of the fan when the vehicle is at a predetermined speed comprises:

setting the duty cycle of the fan to a first duty cycle value when the speed of the vehicle is zero; and

monotonically increasing the duty cycle as the speed of the vehicle increases until the duty cycle reaches a second duty cycle value.

14. (Original) The method of claim 12 wherein the step of increasing the movement of the fan when the vehicle is at a predetermined speed comprises:

setting the duty cycle of the fan to a first duty cycle value when the speed of the vehicle is zero; and

linearly increasing the duty cycle as the speed of the vehicle increases until the duty cycle reaches a second duty cycle value.

15. (Original) The method of claim 12 further comprising:

monitoring the temperature of the second automobile component; and

increasing the movement of the fan when the temperature reaches a predefined value irrespective of the vehicle speed.

16. (Original) The method of claim 15 wherein the step of increasing the movement of the fan when the temperature reaches a predefined value comprises:

setting the duty cycle of the fan to a first duty cycle value when the temperature of the second automobile component is equal to or below a first temperature value; and
monotonically increasing the duty cycle as the temperature of the second component increases until the duty cycle reaches a second duty cycle value.

17. (Original) The method of claim 15 wherein the step of increasing the movement of the fan when the vehicle is at a predetermine speed comprises:

setting the duty cycle of the fan to a first duty cycle value when the temperature of the second automobile component is equal to or below a first temperature value; and

linearly increasing the duty cycle as the temperature of the second component increases until the duty cycle reaches a second duty cycle value.

18. (Original) The method of claim 17 wherein the first temperature value is from about 25 °C to about 40 °C, first duty cycle value is from about 30% to about 100%, and the second duty cycle value is from 70% to 100%.

19. (Previously Presented) A system for masking noise in a hybrid electric vehicle, the system comprising:

a battery;

a fan to cool the battery;

a control unit which senses the engine status and the vehicle speed;

a fan controller that receives a control signal from the vehicle speed monitor wherein the fan controller increases the duty cycle of the fan when the vehicle is at a predetermined speed and when the engine status is such that the engine is turned on.

20. (Original) The system of claim 19 wherein the fan controller sets the duty cycle of the fan to a first duty cycle value when the speed of the vehicle is zero and monotonically increases the duty cycle as the speed of the vehicle increases until the duty cycle reaches a second duty cycle value.

21. (Original) The system of claim 19 further comprising a temperature monitor that determines the temperature of the battery and sends a control signal to the fan controller wherein the fan controller increases the duty cycle of the fan when the temperature reaches a predefined value irrespective of the vehicle speed.

22. (Original) The system of claim 21 wherein the fan controller sets the duty cycle of the fan to a first duty cycle value when the temperature of the battery is equal to or below a first temperature value and monotonically increases the duty cycle as the temperature of the second component increases until the duty cycle reaches a second duty cycle value.

23. (Previously Presented) The method of claim 1 wherein the predetermined engine speed is greater than 600 rpm.